

IN THE SPECIFICATION:

Please insert the following paragraph beginning at page 1, line 3, as follows.

--This is a continuation application of U.S. Patent Application No. 09/456,291, filed December 8, 1999, currently pending.--

Please amend the paragraph starting at page 2, line 3 and ending at line 11, as follows:

--When an alternating ~~alternative~~ voltage signal is applied to one group (to be referred to as an A phase hereinafter), the vibration member produces standing waves (wavelength  $\lambda$ ) as bending vibrations throughout the elastic member such that the middle point of each piezoelectric element of the A phase and points  $\lambda/2$  from the central point correspond to the positions of antinodes, and the middle points between the antinodes correspond to the positions of nodes.--

Please amend the paragraph starting at page 2, line 12 and ending at line 17, as follows:

--When an alternating ~~alternative~~ voltage signal is applied to only the other group (to be referred to as a B phase hereinafter), standing waves are produced as in the above

case, but the positions of antinodes and nodes shift from those of the standing waves produced by the A phase by  $\lambda/4$ .--

Please amend the paragraph starting at page 3, line 1 and ending at line 6, as follows:

--If, therefore, a ring-like contact member (e.g., a rotor as a moving member) is directly pressed and brought into contact with one surface of the vibration member, the contact member receives a frictional force in the circumferential direction from the vibration member and is driven to rotate.--

Please amend the paragraph starting at page 4, line 14 and ending at line 25, as follows:

--According to one aspect of the invention, as a friction member used for a vibration wave driving apparatus, a friction member ensuring excellent abrasion properties for the vibration wave driving apparatus is provided, which is formed by forming a molded member mainly made of plastic ~~fluoroplastic~~ by compression molding of a plastic ~~fluoroplastic~~ powder and an additive, forming a sintered member by sintering the molded member, forming a sheet by cutting the sintered member in the form of a sheet, and removing a modified layer from a surface of the sheet, which is produced by cutting.--

Please amend the paragraph starting at page 4, line 26 and ending at page 5, line 9, as follows:

--According to one aspect of the invention, as a friction member used for a vibration wave driving apparatus, a friction member ensuring excellent abrasion properties for the vibration wave driving apparatus is provided, which is formed by forming a molded member mainly made of ~~plastic~~ fluoroplastic by compression molding of a ~~plastic~~ fluoroplastic powder and an additive, and sintering the molded member, the fiber member being aligned substantially perpendicular to a friction surface and having a specific gravity of not less than 80% of a theoretical specific gravity.--

Please amend the paragraph starting at page 5, line 15 and ending at line 17, as follows:

--Figs. 1A and 1B ~~Fig. 1~~ is a sectional view of a vibration wave motor, and an enlarged cross-section of a sliding contact interface of the vibration wave more, respectively, according to first embodiment of the present invention;--

Please amend the paragraph starting at page 6, line 1 and ending at line 3, as follows:

--Fig. 9 is a schematic view showing an apparatus using the vibration wave motor in Fig. 1A ~~Fig. 1~~ as a driving source;--

Please amend the paragraph starting at page 7, line 18 and ending at page 7, line 22, as follows:

--A convex portion ~~circumferential step~~ 5a is formed as a circumferential step on the sheet-like friction member 5 by machining. A width a and a diameter b of the contact portion (friction surface) between the friction members 5 and 6a in Figs. 1A and 1B ~~Fig. 1~~ are 0.8 mm and 30 mm, respectively.--

Please amend the paragraph starting at page 7, line 23 and ending at page 8, line 5, as follows:

--When an alternating ~~alternative~~ voltage signal having a given frequency is applied to the two groups of piezoelectric members 4, which are alternately polarized in the thickness direction and formed on the vibration member 1, traveling vibration waves are produced in the vibration member 1 by the synthesized ~~synthetic~~ vibrations of two types of standing waves. As a consequence, a frictional force acts on the friction member 6a through the friction member 5, and the moving member 2 as a contact member rotates.--

Please amend the paragraph starting at page 14, line 20 and ending at line 27, as follows:

--If inorganic and organic fibers are added as reinforcing materials, other than the above heat-resistance polymeric materials, to the friction member, the friction member can acquire higher abrasion resistance and stabler friction and abrasion properties. Of these fibers, a carbon fiber as an inorganic fiber is most preferable because it has a stable friction coefficient and causes ~~cause~~ little abrasion.--

Please amend the paragraph starting at page 20, line 22 and ending at page 21, line 20, as follows:

--The difference between the abrasion loss in second embodiment and that in Comparative Example 1 is probably ascribed to the difference between the alignment of carbon fibers contained in the fluoroplastic composite material in the second embodiment and that in Comparative Example 1. When the behaviors of the carbon fibers of the friction surfaces were actually examined with a microscope over time during evaluation, in the second embodiment almost half of the carbon fibers were aligned perpendicular to the friction surface, and only a minimum number of carbon fibers or short carbon fibers came off or moved owing to friction. In contrast to this, in Comparative Example 1, almost half of the carbon fibers aligned themselves parallel to the friction surface, and even relatively long carbon fibers of several 10  $\mu\text{m}$  to 100  $\mu\text{m}$  moved as if they were pushed along the moving direction of the contact member (rotor). In the

worst case, all the carbon fibers came off. Since the above two friction members are obtained by molding and calcination under the same conditions and have the same specific gravity, about 2.0, the densities of the members are the same. Obviously, therefore, the difference in movement between the carbon fibers is ascribed to the difference in alignment between the carbon fibers.--